

Remarks

The Office action dated June 16, 2006 has been carefully considered. Consideration of the remarks presented herein and reconsideration of the rejections is respectfully requested.

I. Status of the Claims

Claims 1-17 are pending in this application. No claims are withdrawn. Claims 1, 3, 4, 6, and 9-17 are amended to more distinctly and particularly point out Applicant's invention. Support for the amendments can be found, for example, on pages 2, 5, and tables 5, 6, 9, and 10 of the originally filed specification. No new matter has been added.

II. Rejections Under 35 U.S.C. §112, Second Paragraph

Claims 1-17 have been rejected under 35 U.S.C. §112, second paragraph as being indefinite because the term "acetosol yellow 5GLS" is incapable as a matter of law of identifying or describing the goods associated with it. The Office action admits that acetosol yellow 5GLS is identified with color index yellow number 138 ("C.I. Solvent Yellow Number 138"), but asserts that C.I. Solvent Yellow 138 number does not adequately identify a dye compound. The Office action asserts that the "chemical composition of the dye used by applicants must be disclosed." Office Action, page 3.

Because the claims have been amended to recite "C.I. Solvent Yellow Number 138" instead of "acetosol yellow 5GLS," any rejection based on the term "acetosol yellow 5GLS" is now moot.

Applicant respectfully submits that C.I. Solvent Yellow 138 is definite to one skilled in the art and identifies a dye, not the source of a dye. The "C.I." is an abbreviation for *Colour Index*. As is known in the art, the *Colour Index* is published by the Society of Dyers and Colourists and the American Association of Textile Chemists and Colorists and is the

definitive guide for commercially available dyes and pigments and their technical properties. This publication defines the system of classifying colorants according to their area of application, which system employs the Colour Index Generic Names and Colour Index Constitution Numbers. In addition, a detailed record of products available on the market is provided in the *Colour Index* and includes manufacturers, physical form, principal usages and comments supplied by manufacturers to guide prospective customers and users. Contrary to the rejection's assertion, a C.I. designation is not a like trademark which identifies a source, but rather is a generic designation of a particular dye.

As shown in the Examiner-cited copies of pages 7234 and 7235 from Volume 7 of the *Colour Index*, 3rd Edition (1982), the entry for C.I. Solvent Yellow 138 indicates wide acceptance in the art of the *Colour Index* as a means for generically identifying dyes. Thus the present claims reciting C.I. Solvent Yellow 138 are definite to one skilled in the art.

Moreover, Colour Index Generic Names are used frequently to define dyes and are commonly used in U.S. patent claims. For example, the Examiner's attention is directed to U.S. Patent No. 6,544,702 to Haggquist et al ("Haggquist") having a U.S. filing date of July 27, 1999 which recites the claim limitation "C.I. Solvent Yellow 138" without disclosing the chemical formula, U.S. Patent No. 5,707,769 to Hagi et al. having a U.S. filing date of July 18, 1995 which recites the claim limitation "C.I. Solvent Yellow 162" without disclosing the chemical formula, U.S. Patent No. 5,626,634 to Goldmann et al. having a U.S. filing date of December 2, 1994 which recites the claim limitations "CI Solvent Yellow 83, CI Solvent Yellow 62, CI Solvent Yellow 48, CI Solvent Yellow 79 and CI Solvent Yellow 83:1" without disclosing the respective chemical formulas, and U.S. Patent No. 5,486,550 to Lubas having a U.S. filing date of June 17, 1994 which recites the claim limitation "Solvent

Yellow 43" without disclosing the chemical formula. These patents clearly establish that the recitation of dyes by their C.I. designations is definite to one of ordinary skill in the art.

The Examiner further asserts that in order to overcome the section 112 rejection, Applicant must amend the specification to include the structure of C.I. Solvent Yellow 138. However, it is well settled that 35 U.S.C. §112 does not require the identification of a chemical structure in order to adequately describe a chemical compound to one skilled in the art. *See Martin v. Johnson*, 454 F.2d 746, 172 U.S.P.Q. 391 (C.C.P.A. 1972). As the Colour Index Generic Name "C.I. Solvent Yellow 138" adequately describes solvent dyes to one skilled in the art, it is not necessary for the present specification to include the structure of C.I. Solvent Yellow 138 in order to comply with the requirements of 35 U.S.C. § 112, second paragraph.

With respect to the C.I. Solvent Yellow 138 of the present invention, Applicant intends all of the claims to be restricted only to the dye which the *Colour Index* generically classifies under the Colour Index Generic Name "C.I. Solvent Yellow 138." As such, the designation "C.I. Solvent Yellow 138" allows one of ordinary skill in the art to readily and accurately determine the boundaries of protection of the present invention. Applicant therefore respectfully submits that "C.I. Solvent Yellow 138" is definite in accordance with the requirements of 35 U.S.C. §112, second paragraph.

Thus, C.I. Solvent Yellow 138 is definite to one of ordinary skill in the art, whereby claims 1-17 are definite to one of ordinary skill in the art and Applicant respectfully requests the rejection under 35 U.S.C. § 112, second paragraph, be withdrawn.

III. Rejection Under 35 U.S.C. §103(a)

The Office action rejects claims 1-17 as being allegedly unpatentable over U.S. Patent No. 6,544,702 to Haggquist et al ("Haggquist") in view of U.S. Patent No. 4,106,934 to Turnblom ("Turnblom") and U.S. Patent No. 5,700,614 to Kawahara et al ("Kawahara") for

the reasons provided on pages 2-3 of the outstanding Office action. The rejection asserts that “Haggquist teaches a charge transport layer in a photoconductive member having a yellow dye to reduce or eliminate the room light fatigue exhibited by multi-layered photoreceptors.” Office action, pp. 3-4. The rejection correctly implies that Haggquist does not expressly disclose tetraphenylcyclopentadienone or 9-fluorenone. *See Id.* As a matter of clarification, Applicant’s note that Haggquist does not disclose reduced room-light fatigue resulting from the yellow dye (which is C.I. Solvent Yellow 138) by itself. Instead, Haggquist repeatedly states that it is the composition (and NOT the ingredients themselves) that provide the desired property. *See e.g.*, col. 3, 17-20, 48-51; col. 4, ll. 42-52; col. 7, ll. 50-54.

In general, to establish a *prima facie* case of obviousness, the rejection must satisfy three basic criteria. First, there must be some suggestion or motivation to modify or combine the references, as provided by evidence in the prior art references or evidence showing the knowledge generally available to one of ordinary skill in the art. Second, there must be evidence showing a reasonable expectation of success. Finally, the prior art references must teach or suggest all claim limitations. M.P.E.P. § 2143. Because the rejection lacks the first two of the three criteria, Applicant respectfully submits that this rejection has not established a *prima facie* case of obviousness.

A. No Motivation to Combine the References

In order to establish a *prima facie* case of obviousness, the rejection must provide evidence showing some suggestion or motivation, either in the prior art references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine reference teachings. *See* M.P.E.P. § 2143. The Federal Circuit has emphasized that to establish a *prima facie* case there must be a thorough and searching factual inquiry based upon the objective evidence of record and thus requires a clear and particular suggestion to

combine prior art references. See *In re Lee*, 277 F.3d 1338, 1433 (Fed. Cir. 2002); *In re Dembiczak*, 50 U.S.P.Q.2d 1614 (Fed. Cir. 1999).

Here, the rejection lacks evidence for a clear and particular suggestion to combine or modify the cited references. The rejection does not provide any citations to any of the references. Certainly, such a nondescript rejection does not satisfy the Federal Circuit's requirement for clear and particular evidence. Also, aside from the conclusory sentence at lines 5-8 on page 4 of the outstanding Office action, there is no mention of motivation. As discussed above, simply finding limitations in the prior art does not by itself establish a *prima facie* case of obviousness.

The rejection states (without specific citation) that "Turnblom teaches that the 9-fluorenone is a good charge transport molecule." Office Action, p. 4. However, Turnblom makes no such statement. Indeed, Turnblom only mentions 9-fluorenone once in the entire patent, and that is when Turnblom provides a partial list of p-type photoconductive materials. Col. 14, l. 1 to col. 15, l. 27. And 9-fluorenone is not used or mentioned in any of the eighteen examples or any of the nine tables.

Moreover, Turnblom's partial list of p-type photoconductive materials provides more than 10,000 p-type photoconductive materials and the rejection provides no reason why one of ordinary skill in the art would choose 9-fluorenone from the more than 10,000 other materials in Turnblom's partial list. The Federal Circuit requires a convincing line of reasoning as to why one of ordinary skill in the art would pick and choose various elements and/or concepts from the cited references to arrive at the claimed invention. *Ex parte Clapp*, 227 U.S.P.Q. 972 (Bd. Pat. App. & Inter. 1985); *In re Wesslau*, 147 U.S.P.Q. 391 (Bd. Pat. App. & Inter. 1965); M.P.E.P. § 2144. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303 (Fed. Cir.

1983), *cert. denied*, 469 U.S. 851 (1984); M.P.E.P. § 2141.02. Here, because there is no line of reasoning providing a motivation or suggestion in the rejection for choosing 9-fluorenone from the Turnblom's partial list of more than 10,000 materials, the references do not motivate or teach choosing the claimed 9-fluorenone. And nor does it motivate a combination with Haggquist.

At best, the rejection provides Turnblom's partial list of more than 10,000 p-type photoconductive materials that would be, *arguendo*, obvious-to-try to create the instantly claimed photoconductor, but "obvious to try" is not the standard for an obviousness rejection. The Federal Circuit has long held that choosing among a varying range of possibilities presented in the prior art, where the prior art had no indication or direction of a successful result within that range, is not obvious. *In re O'Farrell*, 853 F.2d 894, 903 (Fed. Cir. 1988); M.P.E.P. § 2145 X.B. Here, neither the rejection, nor any of the references show any direction or indication to choose the instantly claimed ingredients, *a priori*. Thus, one of ordinary skill in the art would not have been motivated to choose 9-fluorenone from Turnblom and to combine it with Haggquist to make the instantly claimed photoconductor, even if they would have found it obvious to try.

With regard to Kawahara, the rejection states (again, without specific citation) that "Kawahara et al teaches that the tetraphenylcyclopentadienone is a good charge transport molecule..." Office Action, p. 4. Yet, Applicant finds no such statement in Kawahara. And as in Turnblom, tetraphenylcyclopentadienone is taught as one of a myriad of other possible cyclopentadiene derivatives as shown in formula I. Kawahara, col. 3, l. 62 to col. 4, l. 31; col. 6, l. 32 to col. 33, l. 23. Indeed, formula I represents more than 10^{10} compounds, of which tetraphenylcyclopentadienone is only one. The rejection provides no evidence showing motivation or suggestion as to why one of ordinary skill would choose tetraphenylcyclopentadienone from the more than 10^{10} other compounds. As discussed

above, simply because a compound can be chosen is not enough to establish motivation, and nor is the obvious-to-try rationale. Thus, one of ordinary skill in the art would not have been motivated to choose tetraphenylcyclopentadienone from Kawahara and to combine it with Haggquist to make the instantly claimed photoconductor, even if they would have found it obvious to try.

Thus, for at least the aforementioned reasons, Applicant respectfully submits that a *prima facie* case of obviousness has not been established, and therefore request withdrawal of this rejection.

No Reasonable Expectation of Success

In evaluating obviousness an examiner must provide evidence of a "reasonable likelihood of success, viewed in the light of the prior art" at the time the invention was made. *In re Dow Chemical Co. v. American Cyanamid Co.*, 837 F.2d 469, 473 (Fed. Cir. 1988); See M.P.E.P. § 2143.01.

Here, the rejection has not provided evidence of a reasonable expectation of success because it has not provided, among other things, a reasonable expectation of success in making the proposed combination of references.

Specifically, Applicant's specification clearly discloses improved room-light-fatigue properties of the instantly claimed photoconductor over that of the individual photoconductor ingredients. For example, Tables 2, 4, 6, 9, 11, and 12 show that materials with the best fatigue properties are those which mix tetraphenylcyclopentadienone and C.I. Solvent Yellow 138, as compared to those that have only one of them. Similarly, for example, Tables 6 and 10 show that materials with the best fatigue properties are those which mix 9-fluorenone and C.I. Solvent Yellow 138, as compared to those that have only one of them.

Thus, the data in the instant specification make clear that the rejection has not shown that there would have been a reasonable expectation of success for one of ordinary skill in the art to combine the cited references, and therefore, that the rejection has not established a *prima facie* case of obviousness. As such, Applicant respectfully requests withdrawal of this rejection.

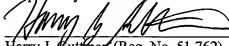
II. Conclusion

It is believed that the above represents a complete response to the rejections set forth in the outstanding Official action. In view of the foregoing remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

If the Examiner feels that a discussion with Applicant's representative would help clarify any of the issues or would further prosecution, the Examiner is invited to contact the undersigned at (513) 977-8253.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 04-1133.

Respectfully submitted,


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